

NITZAN RABINOWITZ

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Personal

Name: Nitzan Rabinowitz
Birth date: January 8, 1949
Citizenship: Israeli
Marital Status: Married + 1

Academic Education

1975 B.Sc. degree in mathematics, Ben-Gurion University, Israel.
1988 Ph.D in seismology, Seismological Department, Uppsala University, Sweden.
Thesis on: 'Some aspects of statistical uncertainties in earthquake location and seismic hazard estimation.'

Employment

1976-1980 Military service in the IDF. Among other positions working at the System Analysis Center in the field of operational research.
rank: Captain.
1980-1981 Teaching mathematics in High school.
1981- 2001 Researcher at the Seismological Division, The Geophysical Institute of Israel (GII).
2001 -2003 CTO, Moonlight Cordless Ltd.

Professional Activities

1989 Visiting lecturer at the Department of Geophysics and Planetary Sciences, Tel Aviv University.

1989 Guest Lecturer in a training course in Guatemala City on seismic risk assessment for civil engineers from six Central American countries, organized by the "Center of Coordination for Prevention of Natural Disasters in Central America."

1991 Leading an international project, funded by the Agency for International Development (USA/AID) to guide a scientific group of Central American and Israeli scientists to carry out in Central America a three years scientific work entitled:

"Earthquake monitoring and seismic hazard assessment in Central America" project id: c11-229.

1992 Awarded (as Israeli PI) a three years research grant jointly with Dr. M. Joswig from Aachen university, Germany, from the German Israel Foundation for Scientific Research and Development (GIF), to conduct a joint research project entitled:

"Detection Localization And Identification Of Local Seismic Events By A Small Array In Israel" (project id: I 123-310.02/91.)

1993 Guest Lecturer at the Universidad Nacional, Heredia, Costa Rica.

1993 Organizing and conducting in Costa Rica, a regional seminar for participants from six central American countries, devoted to modern methods in seismic hazard assessments. The seminar was held at the School

of Geology, University of Costa Rica, Costa Rica (March 1993).

1995 Guest Lecturer in Guatemala City, teaching a month course addressing topics in Statistical Seismology .
financed by the Swedish Agency for Interantional Development (SAREC).
The course was attended by seismologists from the 6 central american countries.

1996 Active participant in the GSE (Group of Scientific Experts) form, in Geneva, in the framework of the GSTT3 seismic experiment.

1996-1998 Expert Adviser for the Israeli delegation for the negotiations of the Comprehensive Test Ban Treaty (CTBT).

1996-1998 Research Seismologist, National Data Center, Nuclear Research Center, Yavne, Israel.

1998 Initiating and organizing of a first international workshop devoted on "High precision "Earthquake Location and Seismic Tomography", January 1998, Dead Sea , Israel .

1999 Organizing of a second international workshop on "3-D Velocity Structure and Accurate Earthquake Location", Platres, Cyprus, July 1999.

2000 Initiating and organizing a joint workshop with USGS experts, funded by the US-Israel Binational Science Foundation - BSF, devoted to "Reevaluation of the Seismic Hazard to Israel", Lod , Israel , May 2000.

2001 -2003 Running the algorithm group of "Moonlight Cordless Ltd", Israeli private company. Actively involved in developing unique algorithmic solutions for video compression.

Publications

1. Rabinowitz, N. (1986). On Identifying Influential Arrivals By Means Of Density Information Matrix, Bull. Seism. Soc. Am., 76,1817-1821.
2. Rabinowiz, N. (1988). Microearthquake Location by Means Of Nonlinear Simplex procedure, Bull. Seism. Soc. Am., 78,380-384.
3. Rabinowitz, N. and O. Kulhanek (1988). Application of nonlinear algorithm for teleseismic location using P-readings from the Swedish network, Phys. Earth. Planet. Inter., 50,111-115.
4. Rabinowitz, N. and D. M. Steinberg (1988). Effect of single arrival time on the hypocentral focal depth determination, Geophysical Journal, 94,567-570.
5. Rabinowitz, N. and T. van Eck (1988). A note on the Fuzzy Set Theory concepts with applications to seismic hazard analysis. Bull. Seism. Soc. Am., 78,1603-1610.
6. ArieH, E. and N. Rabinowitz (1989). Probabilistic assessment of earthquake hazard in Israel, Tectonophysics, 167,223-233.
7. Rabinowitz, N. and E. ArieH, (1989). On earthquake location using a poorly configured seismograph network, Phys. Earth. Planet. Interior., 58,28-34.
8. Rabinowitz, N. and D. M. Steinberg (1990). Optimal configuration of seismographic network - a statistical approach, Bull. Seism. Soc. Am., Vol. 80,187-196.
9. Rabinowitz, N. and D.M. Steinberg (1991). Seismic hazard sensitivity analysis: a multi-parameter approach, Bull. Seism. Soc. Am., 81,796-817.

10. Rabinowitz, N. and A. Hofstetter (1992). A rapid algorithm for estimating fault plane solutions using polarity amplitude data: application of a non linear programming approach, *Phys. Earth. Planet. Int.* 73, 239-254.
11. Rabinowitz, N. D.M. Steinberg and G. Leonard (1993). When does seismic hazard jump ? *Earthquake Spectra*, Vol 9, No. 4, 877-883.
12. Rabinowitz, N. D.M. Steinberg and G. Leonard (1994). How important are "exact" fault dimensions in assessing seismic hazard - a case study, *Isr. J. Earth Sci.*, 43:39-45.
13. Leonard, G. D.M. Steinberg and N. Rabinowitz (1995). Assessment of seismic hazard near faults of uncertain type: Inter-Plate versus Intra-Plate, *Natural Hazard*, 11:111-121.
14. Steinberg, D.M. N. Rabinowitz, Y. Shimshoni and D. Mizrahi (1995) Configuring a seismographic network for optimal monitoring of fault lines and multiple sources, *Bull. Seis. Soc. Am.*, 85, 1847-1857.
15. Rabinowitz, N. J. Steinberg and Y. Mart (1996). New evidence of magmatic diapirs under the Dead sea, inferred from simultaneous inversion of earthquakes, *Tectonics*, vol. 15, no.2, 237-243.
16. Leonard, G. D.M. Steinberg and N. Rabinowitz (1998). An indication of time dependent seismic behavior - an assessment of Paleoseismic evidence from the Arava fault, Israel, *Bull. Seis. Soc. Am.* 88,767-776.
17. Rabinowitz, N., D.M. Steinberg and G. Leonard (1998). Logic trees, sensitivity analyses and data reduction in probabilistic seismic hazard assessment, *Earthquake Spectra*, 14,189-200.
18. Rabinowitz, N. and D.M. Steinberg (1998). Short Term forecast of strong aftershocks of the Mw 7.1 , 22 November 1995, Gulf of Eilat Earthquake, *Isr. J. Earth. Sci.* 46,113-119.
19. Rabinowitz, N. and D.M. Steinberg (1998). Aftershock decay of three recent strong earthquakes in the Levant, *Bull. Seism. Soc. Am.* 88, 1580-1587.
20. Leonard, G., M. Villagran, M. Joswig, Y. Bartal, N. Rabinowitz and A. Saya (1999). Seismic Source Classification in the Galilee area in Israel by Signal Imaging and Rule-Based coincidence evaluation, *Bull. Seism. Soc. Am.*, 89,960-969.
21. Rabinowitz, N. and Mart, Y., 2000. Seismic tomography of the Dead Sea region: thinned crust, anomalous velocities and possible magmatic diapirism. In: B.C. Vendeville, Y. Mart and J.L. Vigneresse (Editors), *From the Arctic to the Mediterranean: Salt, Shale and Igneous Diapirs in and Around Europe*. Geological Society of London, Special Publication 174, pp.79-92 .
22. Rabinowitz, N. (2000). Hypocenter location using a constrained nonlinear simplex minimization method. In C.H. Thurber and N. Rabinowitz (Editors), *Advances in Seismic Event Location*, Special Publication, Kluwer Academic Publishers, The Netherlands, 267 pp.
23. Rabinowitz, N. and D.M. Steinberg (2000). A statistical outlook on the problem of seismic network configuration, In C.H. Thurber and N. Rabinowitz (Editors), *Advances in Seismic Event Location*, Special Publication, Kluwer Academic Publishers, The Netherlands, 267 pp.
24. Steinberg, D.M. and N. Rabinowitz (2000). Optimal seismic Monitoring for Event Location with Application to On Site Inspection of the Comprehensive Test Ban Treaty. submitted for publication.